Please add the following new claims:

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25. (Newly Submitted) A method as set forth in claim 6, wherein combining said specularly reflected light intensity with a specular reflectance coefficient comprises multiplying said specularly reflected light intensity by the specular reflectance coefficient.

26. (Newly Submitted) A method as set forth in claim 7, wherein combining the specularly reflected light intensity with the specular reflectance comprises multiplying the specularly reflected light intensity by the specular reflectance coefficient.

27. (Newly Submitted) A method as set forth in claim 8, wherein a pointer into said detail map is assigned to each texture element of the texture map.

28. ((Newly Submitted) A method as set forth in claim 11, wherein at least one of an environment mapping, and a reflectance mapping is carried out in real time using dedicated arithmetic units.

29. (Newly Submitted) A method as set forth in claim 21 wherein the texture is a reflectance map.

30. (Newly Submitted) A method as set forth in claim 21 wherein the texture is a detail map.

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31. (Newly Submitted) The texturing unit of claim 16, wherein each block value represents the luminance of a texel.

32. (Newly Submitted) The texturing unit of claim 16, wherein each block value represents an index into a look-up table.

33. (Newly Submitted) The texturing unit of claim 16, wherein each block value represents the color of a texel.

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34. (Newly Submitted) A device for mapping real time video images onto a surface of a computer generated object, each video image comprising more than one scan-line, comprising;

a filter unit for generating prefiltered images of less detail; and

means for accessing pixels of a previous scan-line to perform said filtering.

35. (Newly Submitted) A texturing unit for mapping a texture to a surface of a computer generated object, which texture comprises a plurality of blocks, each block comprising a plurality of texels and having two block values associated with the block, and each texel of each block corresponding to one of the two block values associated with the block, the texturing unit comprising:

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a Random Access Memory (RAM) for storing the two block values associated with each block of the texture and a value for each texel, which value indicates the block value to which the texel corresponds;

a decompression unit coupled to the RAM, for accepting from the RAM values representing eight texels and the block values associated with each block of which the eight texels are part, and for determining eight decompressed texel values therefrom;

a trilinear interpolator coupled to the decompression unit, for accepting from the decompression unit the eight decompressed texel values and interpolating an interpolated value therefrom; and

an output port coupled to the trilinear interpolator, for transmitting the new value to a device coupled to the output port.

36. (Newly Submitted) The texturing unit of claim 35, wherein the RAM is configured such that values for eight texels can be accessed substantially simultaneously, the eight texels comprising four texels from a first level and four texels from a second level, where the first level is one level higher than the second level.

37. (Newly Submitted) The texturing unit of claim 36, wherein the four texels from the first level represent a two-by-two block of contiguous texels within the first level of the mipmap, and the four texels from the second level represent a two-by-two block of contiguous texels within the second level of the mipmap.

38. (Newly Submitted) The texturing unit of claim 36, wherein each decompressed texel value represents an index into a look-up table.

39. (Newly Submitted) The texturing unit of claim 36, wherein each decompressed texel value represents the color of a texel.

40. (Newly Submitted) The texturing unit of claim 35, wherein the RAM, the interpolator, and the output port are part of a single chip.

41. (Newly Submitted) The texturing unit of claim 35, wherein the interpolator comprises at least one dedicated arithmetic unit.

42. (Newly Submitted) The texturing unit of claim 41, wherein the RAM, the interpolator, and the output port are part of a single chip.

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43. (Newly Submitted) The texturing unit of claim 37, wherein the RAM, the trilinear interpolator, and the output port are part of a single chip.

44. (Newly Submitted) The texturing unit of claim 43, wherein the trilinear interpolator comprises at least one dedicated arithmetic unit.

45. (Newly Submitted) The texturing unit of claim 35, wherein the texture comprises a plurality of blocks, each block comprising a plurality of texels and having two block values associated with the block, and each texel of each block corresponding to one of the two block values associated with the block, the information stored in the RAM comprising:

the two block values associated with each block of the texture; and

a value for each texel, which value indicates the block value to which the texel corresponds.

46. (Newly Submitted) The texturing unit of claim 35, wherein each texel value represents the luminance of a texel.

47. (Newly Submitted) The texturing unit of claim 35, wherein each texel value represents an index into a look-up table.

48. (Newly Submitted) The texturing unit of claim 35, wherein each texel value represents the color of a texel.

49. (Newly Submitted) The texturing unit of claim 35, wherein each decompressed texel value represents the luminance of a texel.

50. (Newly Submitted) The texturing unit of claim 36, wherein the texture is a view of an environment of a scene.

51. (Newly Submitted) The texturing unit of claim 36, wherein the texture is a reflectance map, and the texel values are specular reflectance coefficients.

52. (Newly Submitted) The texturing unit of claim 36, wherein each texel is associated with a horizontal detail offset and a vertical detail offset, which horizontal detail offset and vertical detail offset are pointers into a detail map associated with the texture, which detail map is stored in the RAM.

53. (Newly Submitted) The texturing unit of claim 52, wherein the detail map is a mipmap.

54. (Newly Submitted) A texturing unit for mapping a texture to a surface of a computer generated object, which texture comprises a mipmap, which mipmap comprises a plurality of levels, each of which levels comprises at least one texel, the texturing unit comprising:

a control unit for receiving an input signal and determining a set of N footprint texel locations and at least one footprint level of detail from the input signal, which input signal includes information about a location and a shape of a projection of a pixel on the texture;

a Random Access Memory (RAM) coupled to the control unit for,

storing information representing the texture,

receiving the set of N footprint texel locations and the footprint level of detail from the control unit, and

determining N sets of texel values, where each set of texel values is associated with one footprint texel location, and where each set of texel values includes at least one texel value;

an interpolator coupled to the RAM, for accepting from the RAM the N sets of texel values and interpolating N interpolated values therefrom;

an averaging unit coupled to the interpolator for accepting from the interpolator the N interpolated values and determining an averaged value therefrom; and

an output port coupled to the averaging unit, for transmitting the averaged value to a device coupled to the output port.

55. (Newly Submitted) The texturing unit of claim 54, further comprising:

a mipmap generation unit, coupled to the RAM, for accepting a changing video image, for generating a generated mipmap in real-time based on the changing video image, and for putting the generated mipmap into the RAM.

56. (Newly Submitted) The texturing unit of claim 55, wherein the changing video image is an interlaced video image and the texturing unit further comprises:

a memory coupled to the mipmap generation unit for holding an interlaced half-frame of the interlaced video image.

57. (Newly Submitted) The texturing unit of claim 55, wherein the mipmap generation unit calculates each level of the generated mipmap incrementally based on available information from the next level of higher detail.